

Assembly Water, Parks & Wildlife Committee Hearing

January 24, 2006

Governor's Strategic Growth Plan

**Flood Protection and
Clean, Safe, Reliable Water Supply
Bond and Financing Acts of 2006 and 2010**

presentation by:

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Department of Water Resources

Building California's Water Future

- Governor's Strategic Growth plan will invest \$35 billion over 10 years



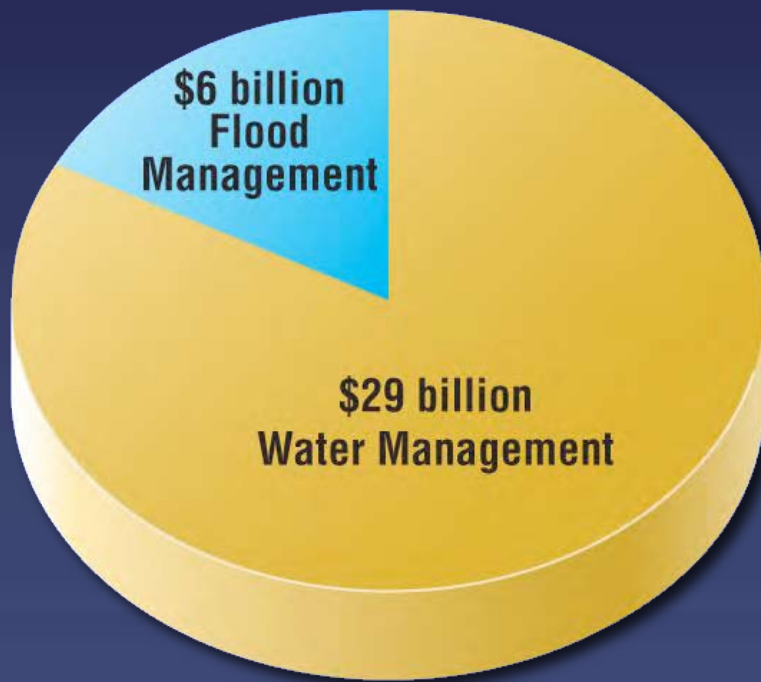
Building California's Water Future



- Governor's Strategic Growth plan will invest \$35 billion over 10 years
- Responding to population growth and lack of sustained investment strategy

Building California's Water Future

- Governor's Strategic Growth plan will invests \$6 billion in Flood Management and \$29 billion in Water Management



Building California's Water Future

- California has specific plans for water quality, water supply, and flood protection
- The Governor's Strategic Growth Plan provides the investment strategy to carry out these plans

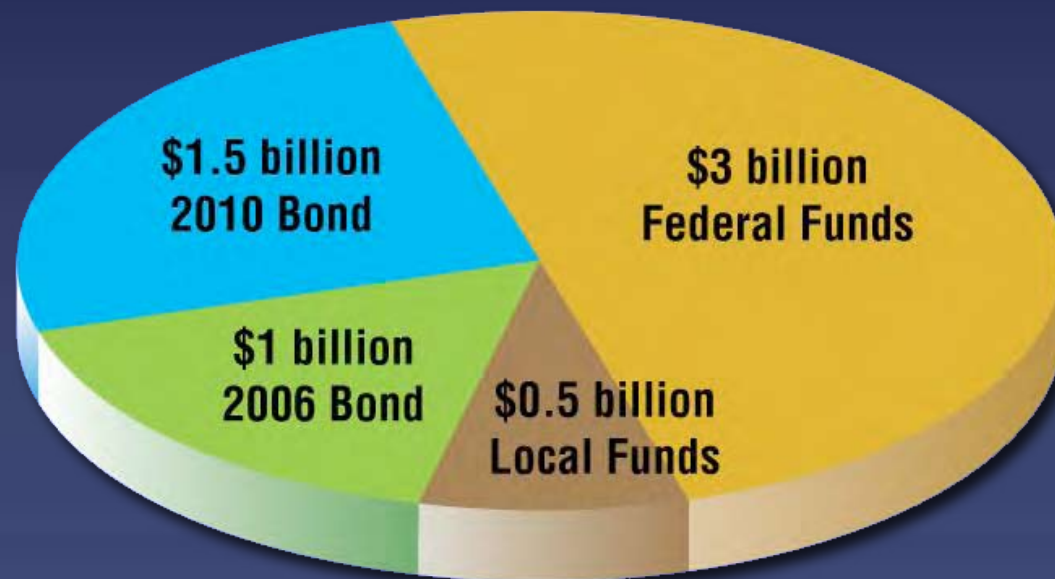


Building California's Water Future

- Elements of the Flood Protection and Clean, Safe, Reliable Water Supply Bond and Financing Acts of 2006 and 2010 (SB 1166, AB 1839):
 - Flood Protection and Water Supply Bond in 2006
 - Flood Protection and Water Supply Bond in 2010
 - Establishment of a Water Resources Investment Fund
- Bonds will provide:
 - \$2.5 billion for flood management
 - \$6.5 billion for water management

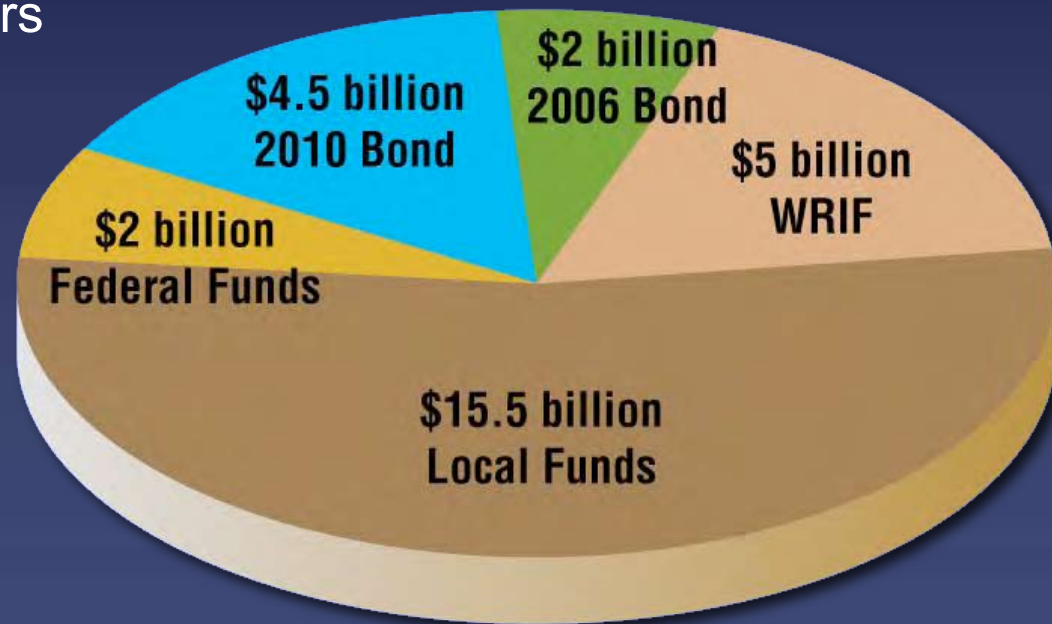
Flood Management Investments

- Bond funds will leverage other flood investments to total \$6 billion over 10 years



Water Management Investments

- Bond funds will leverage other water management investments to total \$29 billion over 10 years



Building California's Water Future

- Water Resources Investment Fund
 - A new source of funding for water management
 - Will ensure that our investments don't fall behind again
 - Two-thirds of the fund supports regional projects
 - One-third supports statewide water management projects
 - Capacity charge paid by every retail water customer
 - About ten cents per day

Building California's Water Future



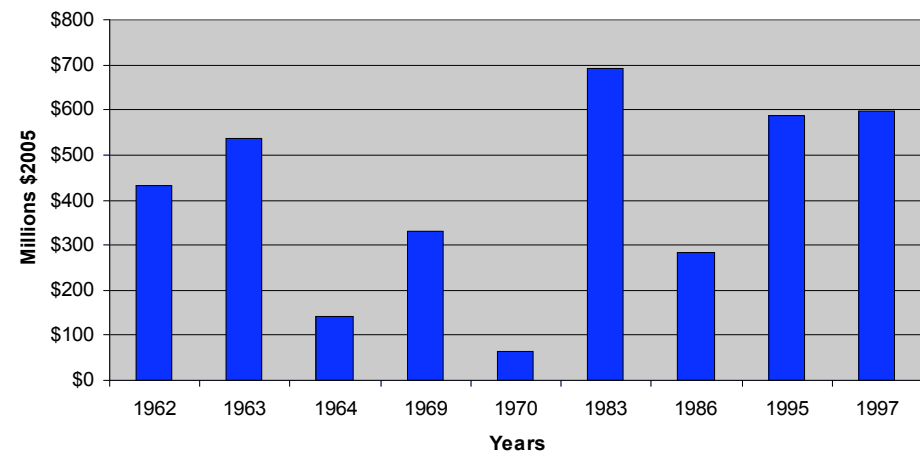
- Most WRIF funds support integrated regional water management
- Sustainable source of funding
- Improve water quality and meet water supply needs

FLOOD MANAGEMENT

California's Flood Crisis



Central Valley Historical Flood Damage



January 2005: DWR White Paper on California's Flood Crisis

Key Challenges:

- Aging Infrastructure
- Increasing development in floodplains
- Court decisions have increased the State's liability
- State, local, and federal funding for Flood Management had declined



January 2005: DWR White Paper on California's Flood Crisis

Key Strategies:

- Maintain Existing Infrastructure
- Address Deferred Maintenance and Deficiencies
- Upgrade Levee System
- Update Floodplain Maps and Improve Public Notification
- Mandatory Flood Insurance
- Sustainable Funding



August/September 2005: Hurricane Katrina



Flood Protection and Clean, Safe and Reliable Water Supply Bond and Financing Acts of 2006 and 2010



Flood Control

	<u>2006</u>	<u>2010</u>
1. Repair of State-Federal Project Levees and Facilities	\$210 million	\$300 million
2. Flood Control and Levee System Improvements	\$200 million	\$200 million
3. Delta Levee Subventions and Special Projects	\$210 million	\$700 million
4. Flood Control Subventions	\$250 million	\$200 million
5. Floodplain Mapping	\$ 90 million	\$ 0
6. Floodway Corridor Program	\$ 40 million	\$100 million
TOTAL	\$ 1 billion	\$ 1.5 billion

Building California's Water Future

Protecting California from Devastating Floods

✓ **Bond funds will leverage other flood investments**



Flood Control Investment over 10 Years:

	State	Federal	Local	Total
1. Repair of State-Federal Project Levees and Facilities	\$ 510 million	\$ 300 million	\$ 30 million	\$ 840 million
2. Flood Control and Levee System Improvements	\$ 400 million	\$ 930 million	\$ 150 million	\$1,480 million
3. Delta Levee Subventions and Special Projects	\$ 910 million	\$ 400 million	\$ 100 million	\$1,410 million
4. Flood Control Subventions	\$ 450 million	\$1,190 million	\$ 190 million	\$1,830 million
5. Floodplain Mapping	\$ 90 million	\$ 0	\$ 0	\$ 90 million
6. Floodway Corridor Program	\$ 140 million	\$ 180 million	\$ 30 million	\$ 350 million
TOTAL	\$ 2.5 billion	\$ 3.0 billion	\$ 0.5 billion	\$ 6.0 billion

1. Repair of State-Federal Project Levees and Facilities

2006 Bond - \$210 million to address deterioration and design deficiencies in Facilities of State Plan of Flood Control:



- \$ 15 million for Sediment Removal
- \$ 25 million for Facility Repairs
- \$ 50 million for Erosion Repairs
- \$ 50 million for Levee Evaluations
- \$ 20 million for Mitigation Banks
- \$ 50 million for Levee and other Repairs

2010 Bond - \$300 million to address deterioration and design deficiencies in Facilities of State Plan of Flood Control:



- \$100 million for Erosion Repair and Sediment Removal
- \$100 million for Levee Evaluations and Repairs
- \$100 million for Levee and other Repairs

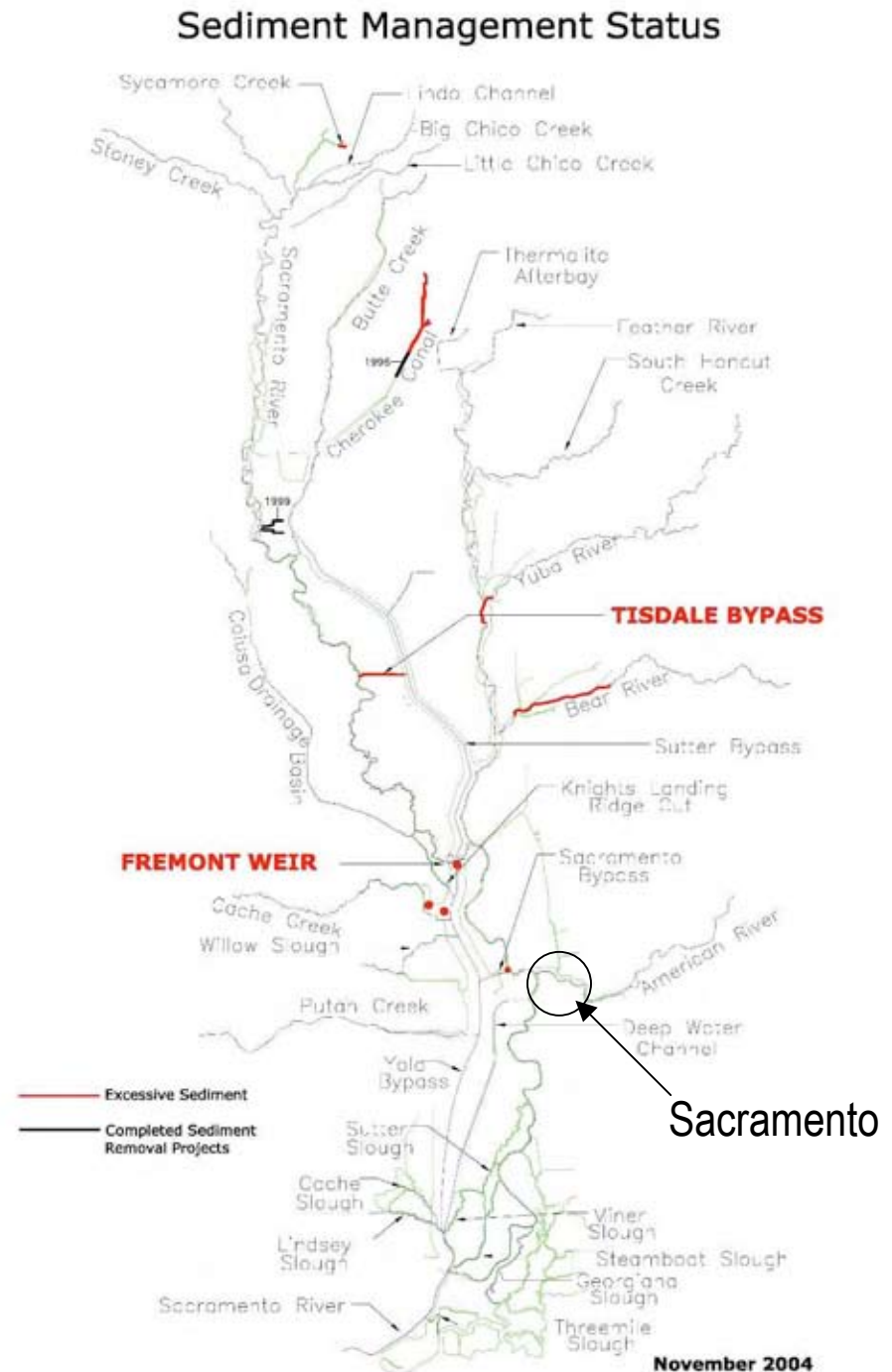
SEDIMENT REMOVAL

Remove 4 million cubic yards from:

- Tisdale Bypass
- Bear River
- Cherokee Canal
- Feather River
- Sycamore Creek
- Yolo Bypass
- Sacramento Bypass



Tisdale Bypass



Facility Repairs

- Replace Weir No. 2 (Sutter Bypass)
- Refurbish Pumps, Motors and Control Systems
- Replace Gates, Seals, and Control Systems
- Provide Fish Ladders/Screens
- Upgrade Buildings, Appurtenances, and Remediate Groundwater Contamination at Maint. Yards

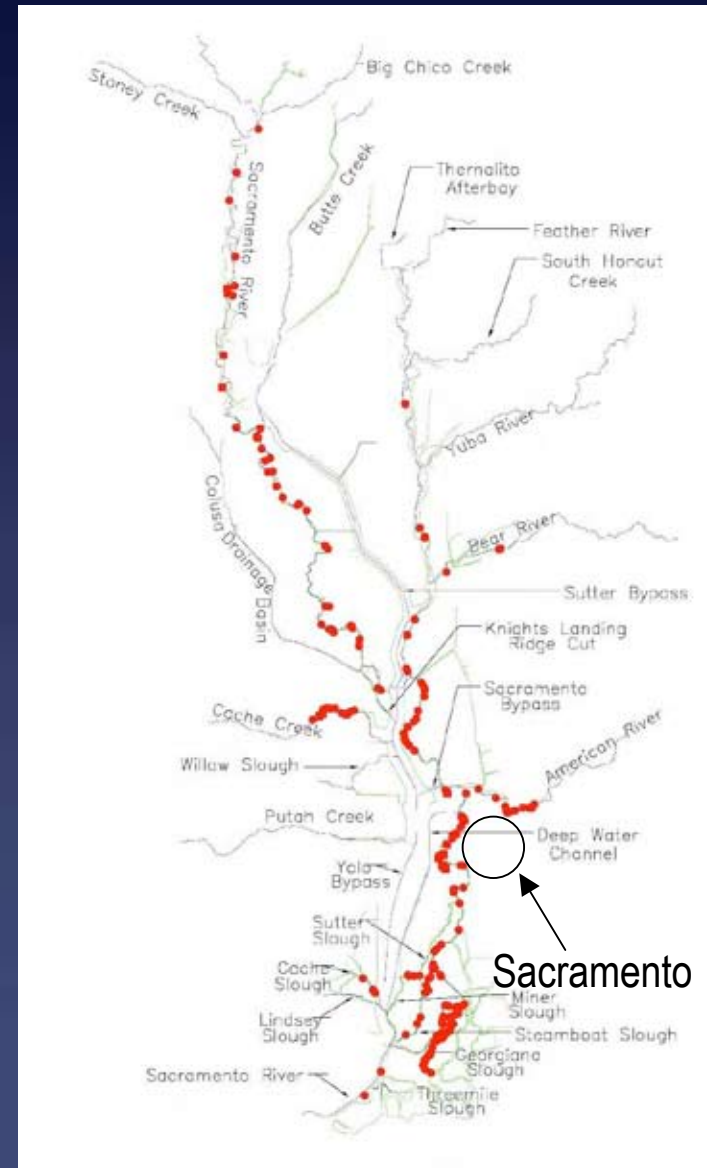
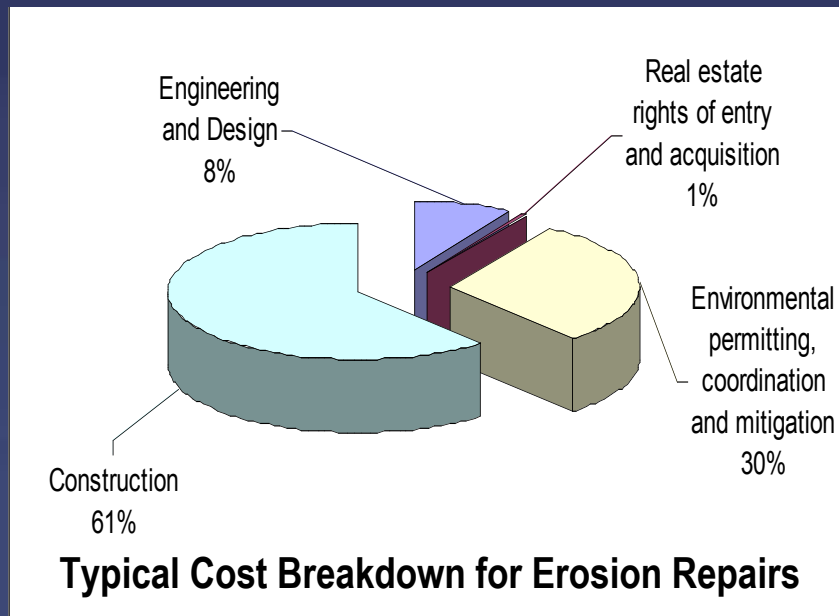


Levee and Bank Erosion

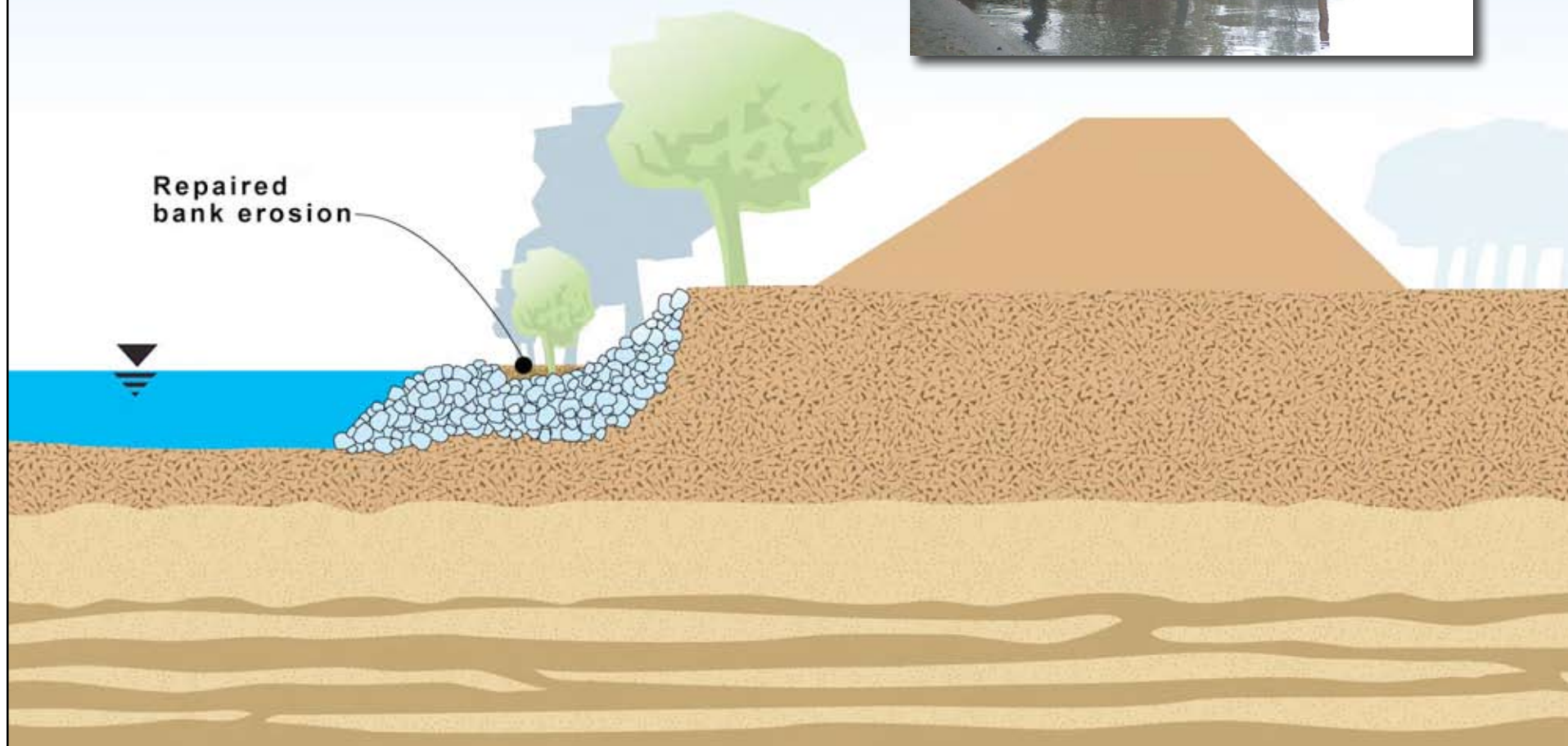


Levee and Bank Erosion Sites

- 174 total sites (>100,000 feet)
- 34 critical / potentially critical sites
- 140 non-critical sites need monitoring
- Repair costs range between \$1,000 and \$9,000 per linear foot



Bank Erosion Repairs



Levee Design Deficiencies

- Old levees, many originally built by farmers, most without adequate engineering.
- Seepage problems under and through the levees.
- *Paterno Decision* faulted the State for not finding and repairing levee deficiencies.

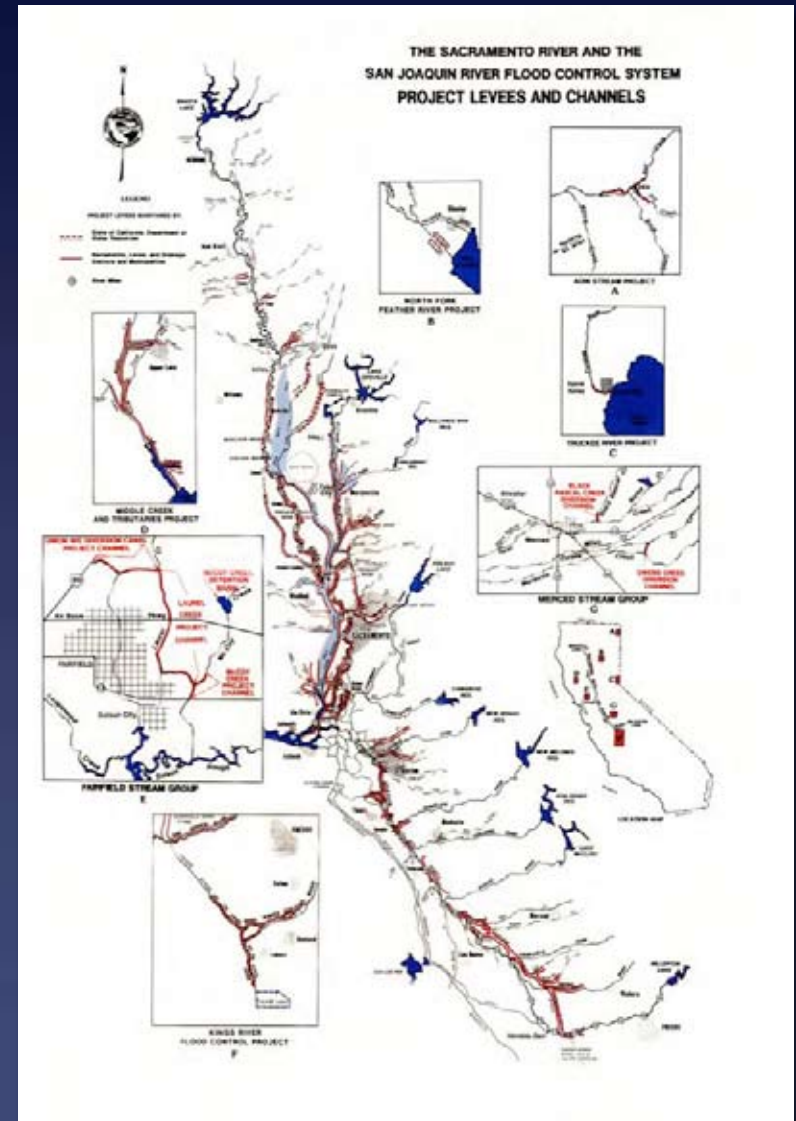


New System Evaluations

- New Corps seepage design standards – **new levee evaluations needed.**
- Engineering evaluations are anticipated to cost \$50 to \$100 million.

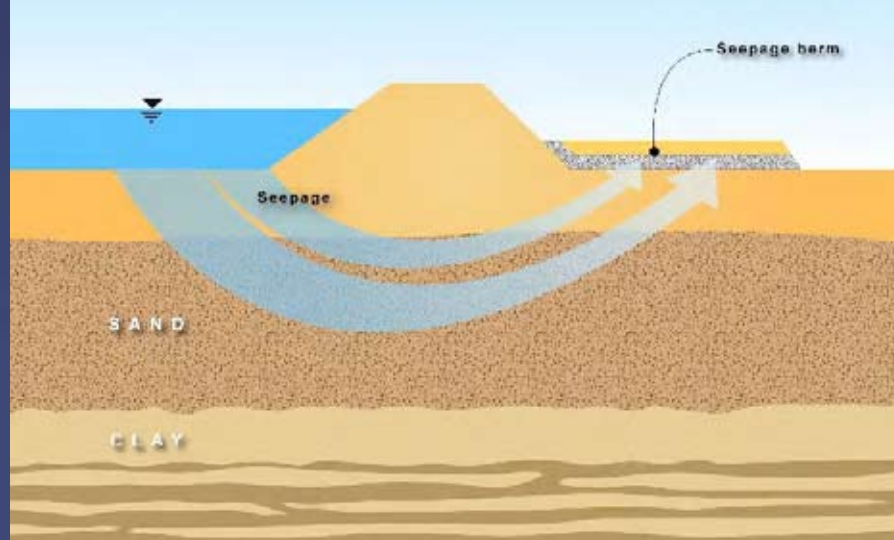


- Repairs are likely to cost hundreds of millions of dollars.



Levee Seepage Repairs:

Seepage Berm



Slurry Wall



2. Flood Control and Levee Improvements

Provides High Levels of Flood Protection for Urban Areas –

Most of this funding will provide the State Cost Share of a Federal Corps of Engineers Flood Control Project:

For 2006 Bond - \$200 million for the following Projects:

- \$ 70 million for Folsom Dam Modifications/Raise
 - \$ 25 million for American River Common Features
 - \$ 10 million for South Sacramento Streams
 - \$ 10 million for Enhanced Emergency Preparedness
- \$ 85 million to supplement above repairs
or be available for other urban areas



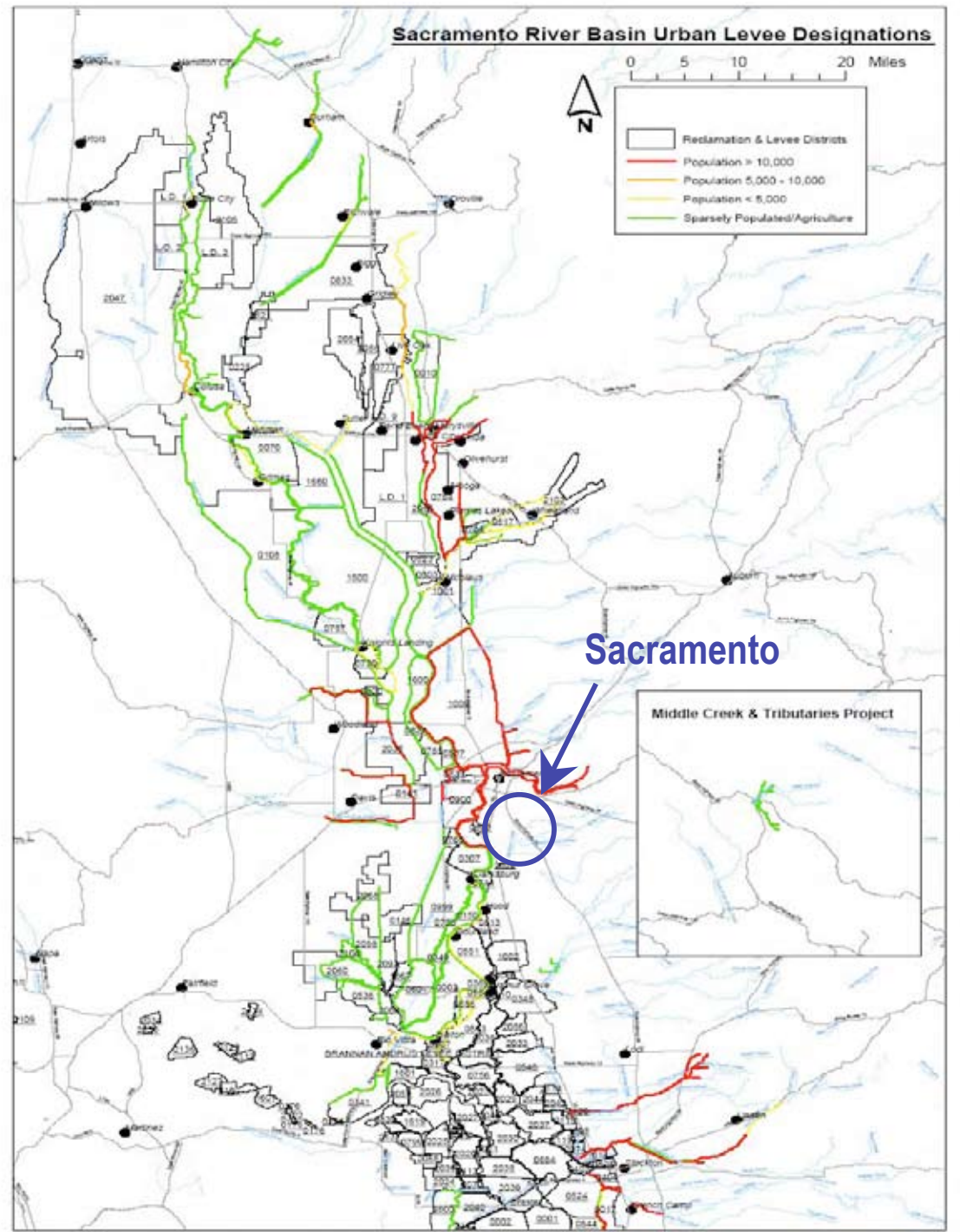
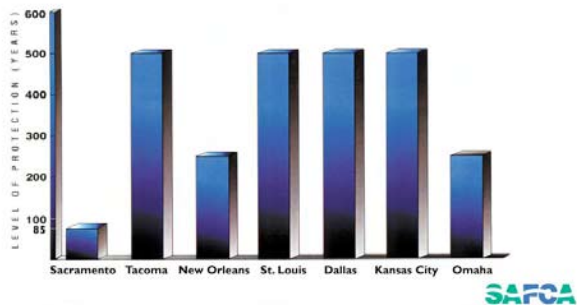
For 2010 Bond - \$200 million for State Cost Share to Provide High Levels of Flood Protection for Urban Areas

Sacramento Valley

- Urban levees
- Rural levees

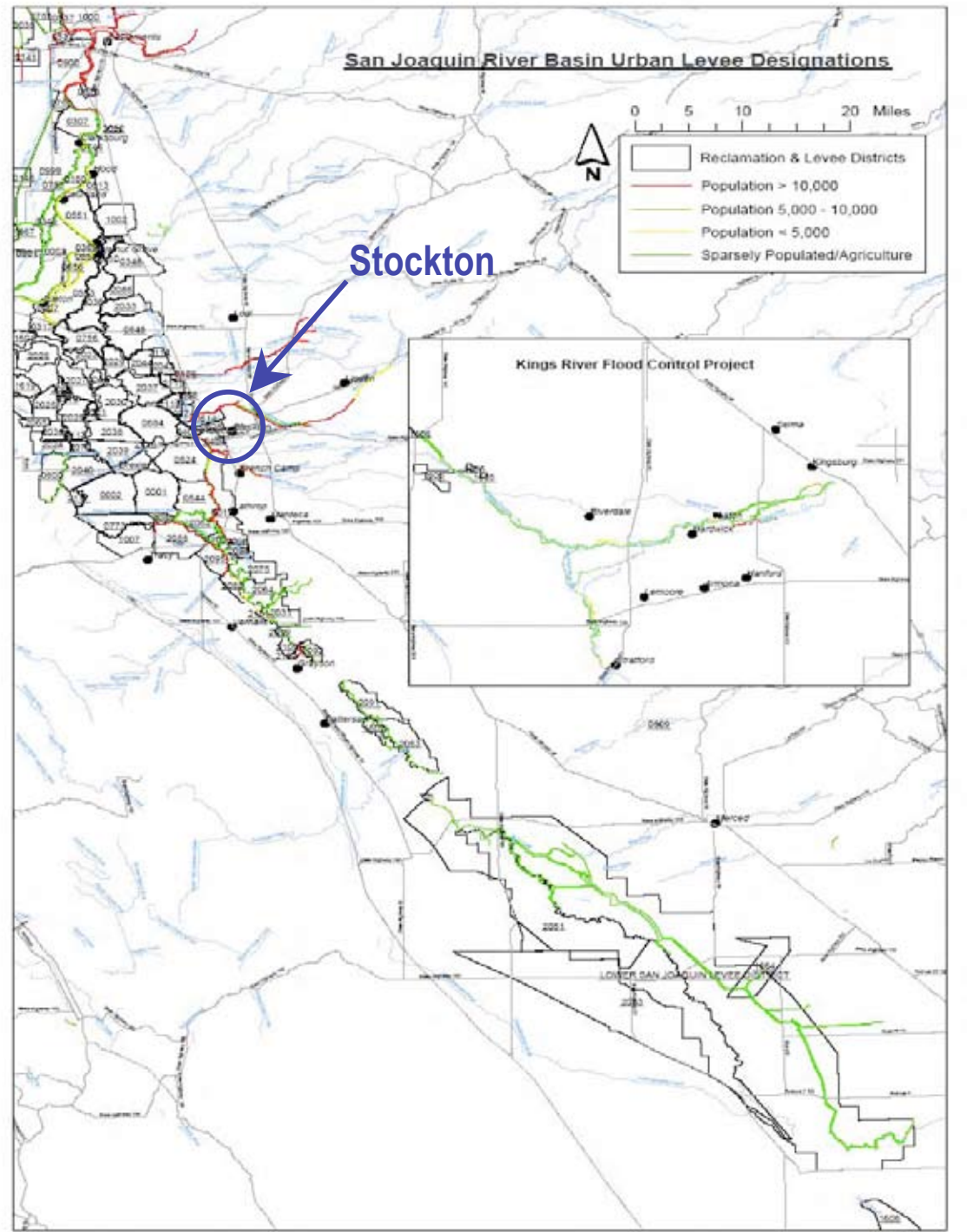


Sacramento's Level of Flood Protection by Comparison to other River Cities



San Joaquin Valley

- Urban levees
- Rural levees



3. Delta Levee Subventions and Special Projects

For 2006 Bond - **\$210 million:** \$60 million for Delta Levee Maintenance Subventions
\$150 million for Special Flood Control Projects

For 2010 Bond - **\$700 million:** \$60 million for Delta Levee Maintenance Subventions
\$640 million for Special Flood Control Projects



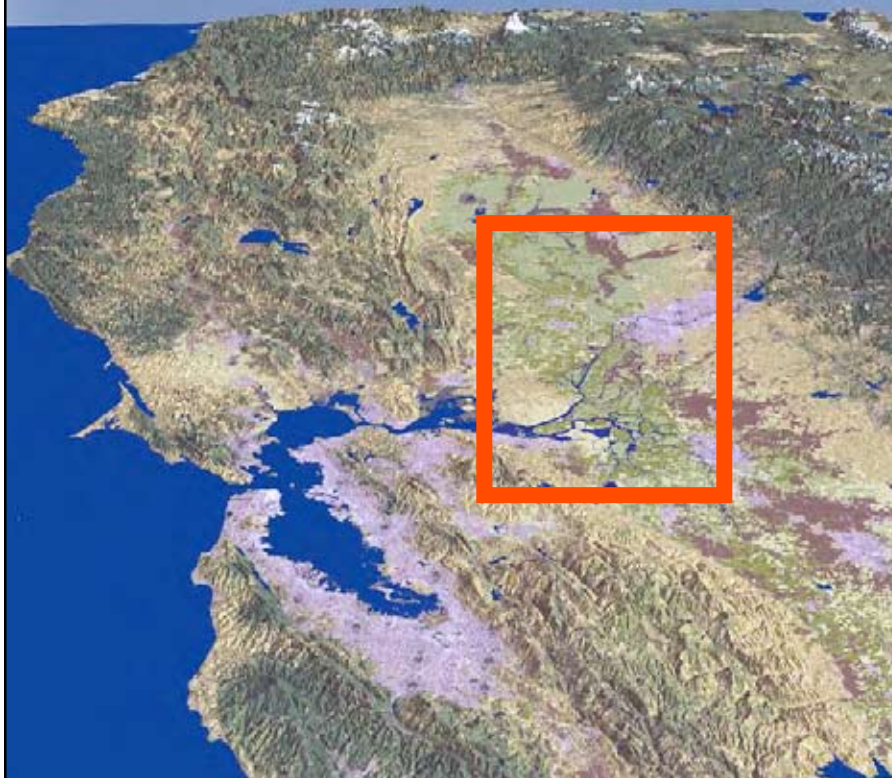
FLOOD SCENARIO: Sacramento-San Joaquin Delta

- Massive Levee Failure in the Sacramento-San Joaquin Delta (from large flood or seismic events)

Up to \$30 to \$40 billion in damage/economic losses in first 5 years following massive levee failure

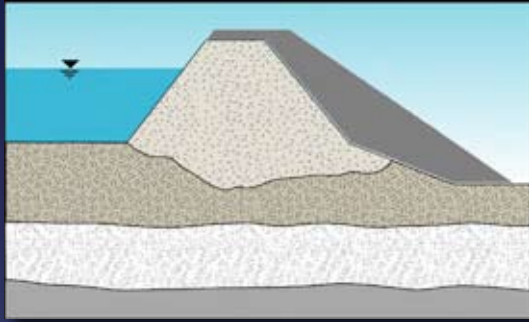


Sacramento-San Joaquin Delta



3. Delta Levee Subventions and Special Projects

2006 Bond - \$210 million



\$60 million for Delta Levee Maintenance Subventions

- Levee Maintenance in Delta and Suisun Marsh
- Levee Upgrades to PL84-99 Standards
- Consistent with DWR, CALFED, and DRMS objectives



\$150 million for Special Flood Control Projects

- Levee Upgrades to PL84-99 Standards
- Demonstration Projects to Reduce Seismic Risks
- Projects to Reduce Island Subsidence
- Mitigation Banking
- Catastrophe Mitigation Actions:
 - Emergency Response Planning
 - Prepositioning of equipment and materials
 - Acquisition of Property
- Cost Sharing with Federal and Local Agencies

3. Delta Levee Subventions and Special Projects

2010 Bond - \$700 million

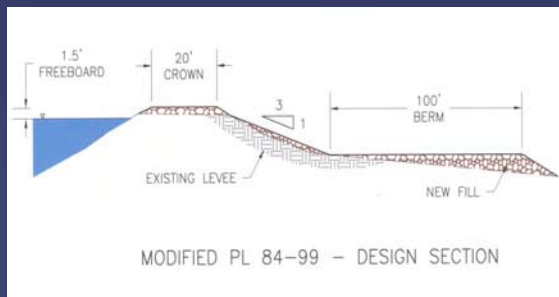
\$60 million for Delta Levee Maintenance Subventions

- Levee Maintenance in Delta and Suisun Marsh
- Levee Upgrades to PL84-99 Standards
- Consistent with DWR, CALFED, and DRMS objectives



\$640 million for Special Flood Control Projects*

- Seismic Levee Upgrades/Setback Levees Initiated
- Plan Form Changes to Reduce Seismic Risks
- Levee Upgrades to PL84-99 Standards
- Mitigation Banking
- Projects to Reduce Island Subsidence
- Catastrophe Mitigation Actions
- Cost Sharing with Federal and Local Agencies



* Prioritized using DWR, CALFED, and DRMS recommendations

4. Flood Control Subventions

2006 Bond - \$250 million for reimbursement to Local Agencies for State's share of Federal Project Construction *Outside* of the Central Valley

2010 Bond - \$200 million for reimbursement to Local Agencies for State's share of Future Federal Project Construction *Outside* of the Central Valley

4. Flood Control Subventions

Major projects include:

- Guadalupe River (Santa Clara County)
- Lower Silver Creek (Santa Clara County)
- Napa River (Napa County)
- Santa Ana River (Orange, San Bernardino, Riverside Counties)



Napa, 2006

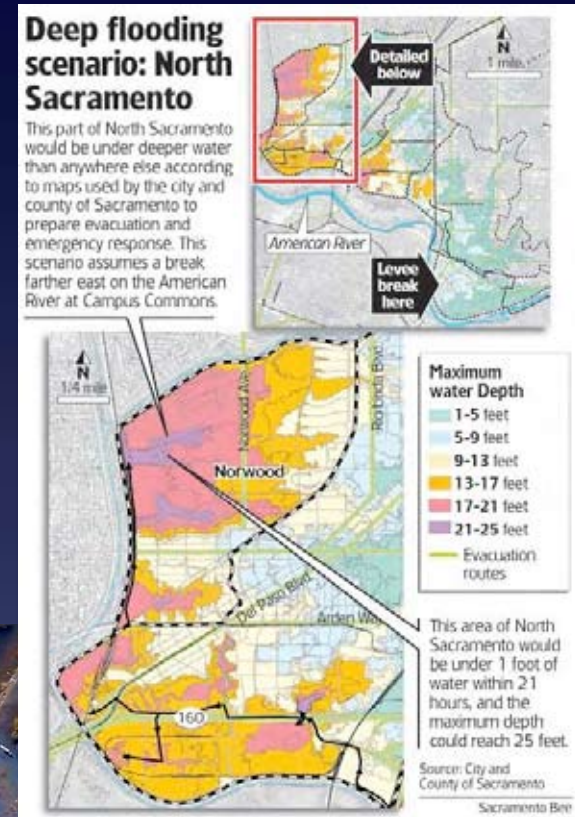
5. Floodplain Mapping Program

2006 Bond - **\$90 million for Floodplain Mapping:**

- \$ 87 million for Central Valley
- \$3 million for Alluvial Fans

Floodplain Mapping Issues:

- Communities Rely on Floodplain Maps in Planning Development
- Current Maps *Woefully Inaccurate*
- To Update Maps, need:
 - Geotechnical data and analyses
 - Recent Surveys
 - Hydrologic and Hydraulic Analyses



6. Floodway Corridor Program

2006 Bond - \$ 40 million for Flood Corridor Program

2010 Bond - \$100 million for Flood Corridor Program

- **Provides Flood Risk Reduction in Rural Communities**
- **Expands Floodways by:**
 - Building New Levees
 - Setting Back Levees
 - Purchasing Flowage Easements
 - Adding Floodwater Detention Areas
- **In Acquiring Land Rights, Priority is for Easements from Willing Sellers**

6. Floodway Corridor Program

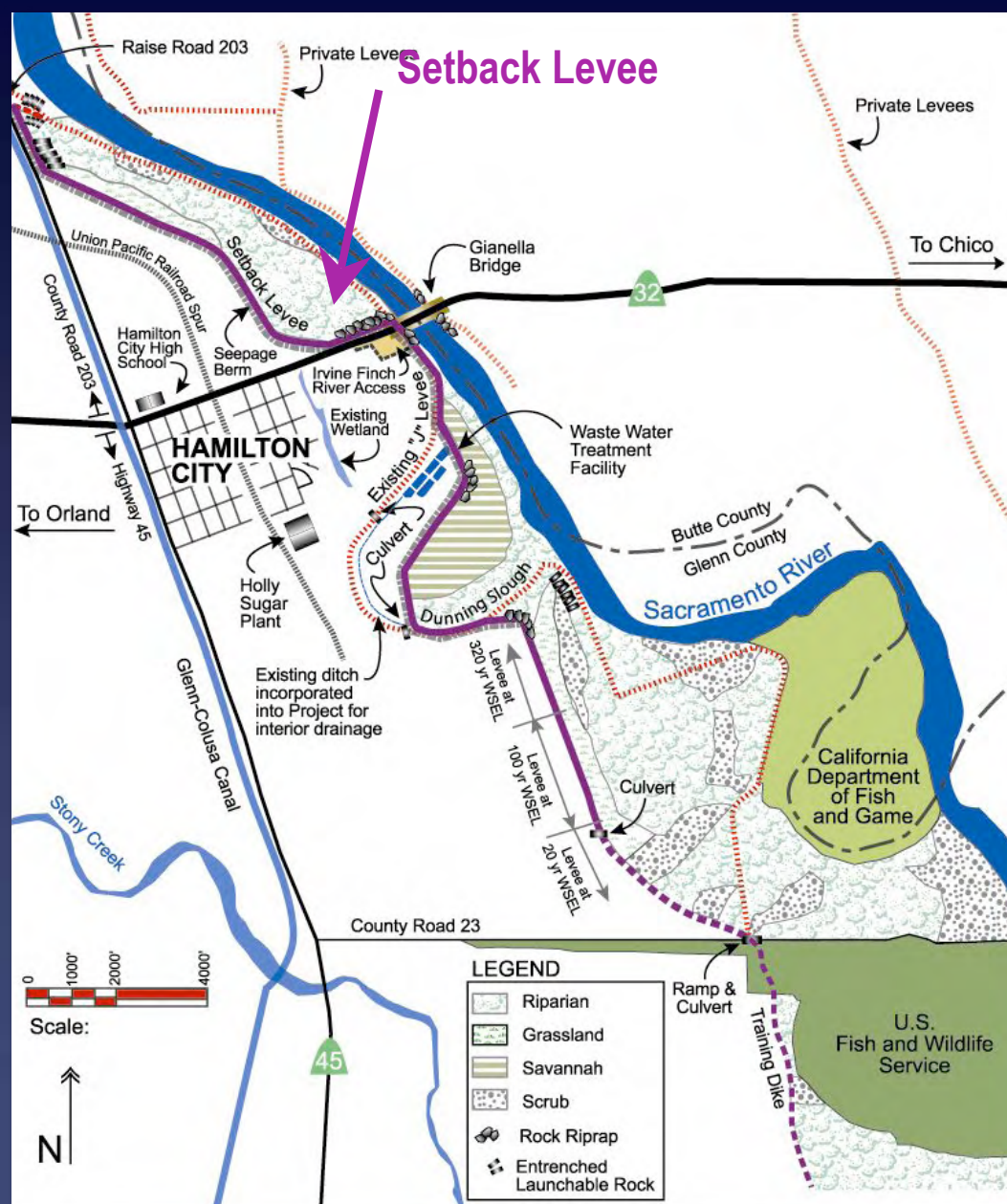
Hamilton City Flood Damage Reduction and Ecosystem Restoration

- Remove “J” Levee
- Construct 6.8 miles of setback levee
- Provides up to 90% confidence of passing a 75-yr event
- Restore 1,476 acres of native habitat communities

Estimated Cost: \$44 Million

Cost Shares:

Federal	65 %
State	24.5 %
Local	10.5 %



Governor's FY 06-07 Flood Management Budget

Complements Bond Proposal by providing an additional \$38.2 million and 32 positions

Second Year Budget Summary FY 2006-07 Request:

	Additional Funding	Added Positions
Flood Project Maintenance	\$ 13.3 million	14
System Reevaluation and Rehabilitation	\$ 2.1 million	8
Emergency Response	\$ 2.3 million	9
Floodplain Management	\$ 3.0 million	1
Delta Levee Program	\$ 15.0 million	0
Supplemental Funding	\$ 2.5 million	0
	\$ 38.2 million	32

An Additional \$31 million is provided for Central Valley Flood Control Projects

Assembly Bill 1665 (Laird)

- State Plan of Flood Control and System Status Report
- Reports on Local Agency Levee Maintenance
- Notification of Flood Risk and Insurance Availability
- Mandatory Purchase/Offer of Flood Insurance
- Indemnification of State by Local Agencies
- State Abatement of Deficient Local Agency Maintenance
- Mitigation Banking
- Beneficiaries Provide Stable Funding for O&M

Environmental Permitting and Mitigation

- **State Environmental Requirements Include:**

- California Environmental Quality Act (CEQA)
- California Endangered Species Act (CESA)
- Streambed Alteration Agreements (F&G Code 1600)
- Surface Mining and Reclamation Act of 1975

- **Federal Environmental Requirements Include:**

- National Environmental Policy Act (NEPA)
- Federal Endangered Species Act (ESA)
- Clean Water Act, Including:
 - Section 401
 - Section 404
- River and Harbors Act of 1899

- Compliance with these acts, particularly with the federal ESA and Clean Water Act requirements, is a lengthy and expensive process

Environmental Permitting and Mitigation

Initiatives to Facilitate Flood Control Work:

- Interagency Collaborative Process Initiated in 2005
- Mitigation Banking
- Fund Permit Reviews in Resource Agencies (FY06-07 Budget)
- Cost Sharing Multi-Objective Projects

Sound Investments in Water Management



- Sustained investment approach
- Match specific plans for water quality, water supply and flood protection improvements with investment strategy
- Largest investment in state history to maintain and improve flood and water management programs

Three components of state investment:

- Bonds
- Water Resources Investment Funds
- State Budget Increase

In Addition, Legislative Initiatives (e.g. AB 1665) will Complement these Investments